Listing and Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A method Method for inserting a watermark into data (**x**) representing a content to be protected, comprising the steps of:

a) generating, from said data (**x**), a modulation sequence (**m**) representing the maximum amount of noise which can be added to said data,

[[a)]] b) supplying a pseudo random noise sequence (**v**) to the input of a filter with predefined impulse response (**h**);

c) multiplying said filtered pseudo noise sequence (**w**) with said modulation sequence; and

[[b)]] d) adding said the filtered pseudo noise sequence (**w**) multiplied by the modulation sequence to said data.

2. (Currently amended) The method Method according to Claim 1, further comprising the steps of:

e) performing a pseudo-random interleaving (p) of the modulation sequence (**m**) before step c)

[[c)]] f) performing [[a]] the pseudo random interleaving (p) of the data (**x**) before step b) step d); and

[[d)]] g) performing an inverse interleaving after step b) step d) so as to obtain the watermarked data.

3. (Currently amended) A method Method for detecting a watermark in data (**r**) representing a content received, comprising the steps of:

i) performing a spectral analysis of said data; and

ii) deducing estimating therefrom whether said data include a pseudo noise sequence which has been filtered by a filter with predefined spectral response (H(f)); and

iii) deducing from said estimation the presence of said watermark.

4. (Currently amended) The method ~~Method~~ according to Claim 3 for detecting a watermark in data (**r**) representing a content received, the watermark being adapted to be inserted in ~~accordance with the method according to Claim 2~~ data (**x**) to be protected after performing a pseudo random interleaving (p) of said data to be protected, further comprising:

[[iii)]] iv) performing, before step i), [[a]] the pseudo random interleaving (p) of the data (**r**) received, ~~which is identical to the interleaving performed in step c)~~.

5. (Cancelled).

6. (Currently amended) A device ~~Device~~ for inserting a watermark into data (**x**) representing a content to be protected, comprising:

    means for generating a pseudo random noise sequence (**v**);

    means for generating, from said data (**x**), a modulation sequence (**m**) indicative of the maximum amount of noise which can be added to said data;

    filtering means having a predefined impulse response (**h**) and which are adapted for receiving said pseudo noise sequence (**v**) and for supplying a filtered pseudo noise sequence (**w**);

    multiplication means for multiplying said filtered pseudo noise sequence (**w**) with said modulation sequence; and

    means for adding ~~said~~ the filtered pseudo noise sequence (**w**) multiplied by the modulation sequence (**m**) to said data (**x**).

7. (Currently amended) The device ~~Device~~ according to Claim 6, further comprising:

    first means of pseudo random interleaving of the data (**x**) representative of the content to be protected so as to supply interleaved data ($\tilde{x}$),

    second means of pseudo random interleaving, adapted for performing the same interleaving as said first means of pseudo random interleaving, and adapted for receiving said modulation sequence (**m**) so as to supply an interleaved modulation sequence ($\tilde{m}$), said interleaved modulation

sequence being supplied to the multiplication means for multiplication with said filtered pseudo noise sequence (**w**);

said wherein the interleaved data being are supplied to the addition means so as to be added to the filtered pseudo noise sequence (**w**) multiplied by the interleaved modulation sequence ($\tilde{m}$); and

means of inverse interleaving of said first interleaving means, linked to the output of said addition means so as to supply the watermarked data.

8. (Currently amended) The device Device according to Claim 6 Claim 7, further comprising:

means for transforming the content to be protected into data (**x**) representative of said content;

means for generating a modulation sequence (m) indicative of the maximum amount of noise which can be added to said data;

wherein:

first means of pseudo-random interleaving of said data (x) representative of the content to be protected so as to supply interleaved data ($\tilde{x}$);

second means of pseudo-random interleaving, which are identical to the first adapted for receiving said modulation sequence (m) so as to supply an interleaved modulation sequence ($\tilde{m}$);

multiplication means adapted for receiving, on the one hand the interleaved modulation sequence ($\tilde{m}$), and on the other hand the filtered pseudo noise sequence (w), so as to supply the watermark;

means of addition of the interleaved data ($\tilde{x}$) and of the watermark, the output of said addition means being linked to:

means of inverse interleaving of said first and second interleaving means so as to supply the watermarked data (y); and

means of inverse transformation of the watermarked data into a marked content.

9. (Currently amended) A device Device for detecting a watermark in data (**r**) representing a content received, comprising:

means for ~~estimating~~ obtaining the power spectral density of said data; ~~and~~

means of likelihood testing of hypotheses so as to estimate whether said data include a pseudo noise sequence which has been filtered by a filter with predefined spectral response (H(f)) ; and

means for deducing from said estimation the presence of said watermark.

10. (Currently amended) The device ~~Device~~ according to Claim 9, adapted for detecting a watermark inserted by an insertion device, said insertion device comprising means of pseudo random interleaving of the data (x) to be protected so as to supply interleaved data ($\tilde{x}$) and means for inserting said watermark in said interleaved data ($\tilde{x}$) wherein the detection device furthermore comprises:

means of pseudo random interleaving of the data (r) representing the content received, which are adapted for performing the same interleaving (p) as said ~~first~~ interleaving means of the insertion device, said interleaved data ($\tilde{r}$) being supplied to said means for ~~estimating~~ obtaining the power spectral density.

11. (Currently amended) The device ~~Device~~ according to Claim 10, adapted for detecting a watermark inserted by an insertion device further comprising means for transforming the content to be protected into data (x) representative of said content wherein said detection device furthermore comprises:

means for transforming the content received into data (r) representative of said content, said transforming means being adapted for performing the same transformation as the transforming means of the insertion device.